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MODES OF RATIONALITY AND IRRATIONALITY

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## MODES OF RATIONALITY AND IRRATIONALITY

Despite the fact that the concepts of rationality and irrationality are central to the social sciences, social scientists have devoted remarkably little attention to them in their analyses. Instead, they have tended uncritically to assume models of human behavior that are either exclusively rationalistic or alternatively, strongly irrationalistic. Consider the case of political science. Influenced by scholars like Harold Lasswell, political science during the fifties took a strong interest in psychoanalytic models of political behavior.<sup>1</sup> More recently, the emphasis in political science has moved away from psychological models and towards rational choice analyses.<sup>2</sup> What is especially interesting about this is the completely either/or character of the two traditions of political science research -- rational choice theorists tend to overlook the role of unconscious motives, while psychoanalytic approaches downplay the calculating aspects of that same behavior.

In this paper we propose a broader scheme for thinking about the rationality and irrationality of human action. This scheme, we shall argue in the first place, does better justice to the actual complexity of human action than either rational-choice or psychological models by themselves. And, in the second place, it explains why theorists (and laymen) so often differ in their

assessments of the rationality or irrationality of the same action -- they differ, we shall argue, both because they either ignore or else concentrate on the context in which the action has occurred.

We propose to describe human behavior in terms of a two-dimensional matrix -- rational/irrational and conscious/unconscious -- as in the following diagram:

FIGURE 1

Dimension 2	Dimension 1	
	Conscious	Unconscious
Rational	CR Calculated, Efficient Behavior	UR Uncalculated, efficient Behavior
Irrational	CIR Calculated, Inefficient Behavior	UIR Uncalculated, Inefficient Behavior

#### ACTION AND MERE BEHAVIOR

Before we discuss the types of human action which this scheme yields, we must define action generally and distinguish action from what is mere behavior. An action is a goal-directed behavior. Thus a yawn when others yawn, a knee jerk, a fall on an icy pavement are not actions but mere behaviors. On the other hand, thumbing a ride, hijacking a plane, and sliding to second base are

actions. Typically, an action is always a stage in a more or less long, more or less complex, serial. Thus a hitchhiker's immediate goal in making the ride-thumbing gesture is to induce a passing motorist to stop, but he will typically have more remote goals to which getting a motorist to stop is a means -- getting a lift, arriving at his destination, negotiating for the purchase of a car which has been advertised as being for sale at that place.

We shall call any such sequence of actions a serial.

At some point the goals of any serial rather than being perceived as determinate goods, begin to fade away into what the agent feels to be vaguely desirable. Long serials have the characteristic of high uncertainty and risk, and the longer the serial, the more likely it is that this is so. Further, as serials unfold (unroll) in time, they are subject to reversals, repetitions, backtrackings and alterations of direction.

Finally, serials do not begin, or end, with a clean break; rather, they incorporate, and become incorporated in, other serials. Life is a stream, not a series of encapsulated units, though, of course, as a matter of convenience we may often talk about terminations and beginnings.

It is perhaps unfortunate that the term "action" is commonly used to designate both long serials and also very short segments, and even single components, of serials. A ride-thumbing gesture is a single component in its serial (a single action); hijacking a plane is a longish segment of a serial, consisting of many component actions (each one similar to the ride-thumbing

gesture): getting past airport inspection, secreting weapons on board the plane, announcing the takeover, threatening the passengers, giving orders to the pilot. . . . Judgments about the rationality or irrationality of an action are greatly affected, as we shall see, by how extensive a segment of a serial is being considered. In this as in other ways assessments of rationality are context-relative.

#### KINDS OF ACTIONS CONSIDERED

With this brief account what we mean by action generally, we can return to our four box matrix, and we shall consider first those kinds of actions that seem to us to fall in the upper left-hand box -- CR actions. CR actions are those in which (1) an agent is consciously aware of a process of decision or calculation; (2) his beliefs and preferences are "normal" (a concept to which we shall have to return shortly); and (3) his actions are consistent with his or her beliefs and expectations). Thus a ride-thumbing gesture is CR if the hitch-hiker wants to get a ride, considers the alternatives, and then decides that thumbing is the best strategy. That is an unusually easy decision to make. Nevertheless, as the connection between ends and means gets more complicated, mathematical models will reveal to agents nonobvious best strategies as long as their preferences and expectations can be characterized by some mathematical form (e.g., preferences in terms of utility

functions or indifference curves -- expectations in terms of probability distributions, etc.).

The CR quadrant of our matrix is the domain par excellence in which the rational-choice theorist feels most at home. The most extreme adherents of rational choice tend to ignore all actions that do not fit into this quadrant, or that are not easily forced into it. Their means for accomplishing this is a decision to ignore the possible irrelevance, inappropriateness, or abnormality of an agent's goals. Thus the rational-choice theorist argues that individuals are acting rationally even when they have distorted perceptions of the world or when their preferences seem to us to be very strange. The crucial consideration for rational choice theory is whether the agent is efficiently maximizing his goals, not whether his goals, or perceptions are "normal" or even appropriate. Thus, for the rational-choice theorists, a fellow who tries to walk up a hill on his eyebrows, because he mistakenly believes them to be stronger than his feet, may be as rational as one who walks up in the usual way. Most people would want to call the fellow who tries to walk up the hill on his eyebrows irrational since most people know that feet are stronger and more efficient than eyebrows. If this were not common knowledge, then using one's eyebrows would not be irrational -- merely adventuresome. Rational-choice theorists justify their departure from common usage -- and from common assessments of rationality and irrationality -- by treating all beliefs as equally reliable, and all goals as equally appropriate, from the point of view of maximization. But the cost they pay for this

simplification is high: it has been the source of endless confusion, and it has led to accusations that the rational-choice perspective is tautological.

Thus the upper-left box of our matrix is not empty: certainly CR actions do occur. But whether a particular action is or is not CR is an empirical question. For instance, if the ride-thumbng gesture is usually CR, there are circumstances (and, as we shall show, they are not all that unusual) in which it is UIR. So for that matter action that is usually UIR may turn out, in different circumstances, to be CR. So much for CR action: We turn next to the lower-left box -- CIR action. CIR actions occur when an agent optimizes a bizarre preference or when he has unusual beliefs about the world. For instance, if there were anyone who is sufficiently out of touch with the real world as to believe that eyebrows are as good as feet for walking on, his attempt to get up the hill on his eyebrows would be an example of CIR action. In such an extreme case, assessment is easy -- everyone would call walking up hill on one's eyebrows irrational. But in real life such extreme cases are rarer than borderline cases. And borderline cases are those in which context-relativity is likely to affect assessments of rationality -- that is, to affect judgments as to whether some action is CR or CIR.

To begin with, it is important to note that, the longer the segment of a serial that is being considered, the more likely, ceteris paribus, that the action (taking the whole act segment as one action) will seem CIR. This is the case because of the



characteristic of serials that we shall describe as high uncertainty and risk. People vary a great deal in their tolerance for uncertainty and risk. People with a low tolerance for uncertainty and risk are likely to evaluate the actions of people with a high tolerance for uncertainty and risk as "foolhardy." People with a high tolerance for uncertainty and risk are likely to evaluate the action of people with a low tolerance for uncertainty and risk as "overcautious." When foolhardiness and overcaution are pushed to extremes (i.e., to what observers, from their particular perspectives, view as extremes), those actions will be condemned as "irrational." And the very same action may therefore be condemned as irrational by different observers for quite opposed reasons.

In addition to the effect that differential tolerance for uncertainty and risk has on judgments of rationality, differences in what we shall call time horizons must be taken into account. At least three kinds of consideration affect the scope of a time horizon -- both that of the agent and also an observer evaluating his action for its rationality.

In the first place, it seems that societies differ markedly from one another in this respect -- some societies inculcate longer, and others shorter, time horizons as being desirable (i.e., as being "virtuous"). This leads to variations in attitudes towards scheduling, towards agenda-formation, and, generally, towards the postponement of gratification. The result, once again, will be very different assessments of rationality. Second, within any society there are differing personal time-horizons, expressive doubtless of differing

temperaments -- some people seem constitutionally to have longer, and others, shorter, time horizons. (There is presumably, an age factor here as well). But thirdly, time horizons may be drastically affected by changing environmental circumstances. For instance, an individual whose time horizon (whether by reason of temperament or societal inculcation) is normally long may nonetheless experience a radical contraction of his time horizon in a moment of crisis or danger.

For instance, a bank teller who is deeply in debt and who is being pressed for repayment may "borrow" bank funds, even though he knows (in some sense of "knows") perfectly well that the chances of his being found out are high and that, if that happens, he will then be much worse off than if his debts remain unpaid. How can this be? In the urgency of his situation, he ignores future dangers to concentrate on present ones: let the future take care of itself. Calculation has occurred, and from his point of view his action is CR. From ours, as observers, it may be CIR. How we, as observers, assess his action depends on what time horizon we ourselves think appropriate in the circumstances. If we take into account only the short time horizon -- how to get through the next day or two -- the agent himself has adopted we too may conclude that his action is CR; if we adopt the longer time horizon we believe he would adopt in different circumstances, we conclude his action is CIR.

In a word, everyone sees that risks are involved in taking too short a view; different risks, everyone sees, are involved in taking too long a view. Ideally, there ought to be some view that is

optimally long (alternatively, optimally short); given such an optimal view, actions judged to be irrational from that optimal view would be irrational. But there is likely to be a nonterminating disagreement about whether there is any such optimal view. And even if this question were resolved, there would be nonterminating disagreements about how much deviation from it is to be tolerated before assessments made from those deviating views are held to be unreliable estimates of the rationality and irrationality of actions.

It seems then, that the rationality or irrationality of actions is always assessed from the frame of reference of some time horizon or other. An action, looked at from the frame of reference of its own short segment of its serial, may be rational; looked at from the frame of reference of a longer segment of the serial, it may be irrational; looked at from the frame of reference of a still longer segment it may again be rational. Accordingly, one cannot say of any action that it is per se rational or, alternatively, that it is per se irrational. We can all agree that the rationality or irrationality is a function of its appropriateness to "its" goal, but unfortunately this goal cannot be decisively specified. Since the action is an element in a serial, and since serials are unending sequences of goal-directed actions, it would be arbitrary to take any particular goal as "the" goal of that action.

Another form of context-relativity is the variability of community norms. The different meanings of the thumbing gesture in other societies is a case where a belief which is appropriate

in one society is inappropriate in another. Still another is "normality" as defined, not by community norms, but the preferences and beliefs which we come to expect of a particular individual, based upon our previous experience of him. Thus, the man or woman in a midlife crisis, or the recently converted Jesus freak may seem to us to be individuals who have taken leave of their senses (i.e., who are irrational).

This brings us to our third category -- unconscious irrationality (UIR). UIR action occurs when unconscious processes interfere with the maximization of preferences. A hitch-hiker who feels defiant or angry about his situation may allow those feelings (unconsciously) to be expressed in his behavior -- his ride-thumbing gesture may be converted into a nose-thumbing one, a change that is likely to make it more difficult for him to get a ride. A less trivial example is a terrorist, who may have legitimate political goals but who in carrying out his strategies (which may seem to us to be consciously irrational as well) allows subconscious desires (the need of a weak person to dominate as manifested by the cruel games that terrorists sometimes play with their hostages) to manifest themselves, and by so doing, turns public opinion against his cause.

We shall call all such phenomena as these swamping, and whenever calculation is swamped by any one of several possible kinds of psychological modality -- anger, fear, disgust, vanity, sadism to name a few -- an action that would otherwise be CR becomes UIR.

There are cases in which everybody agrees that swamping has occurred and others in which everybody agrees that swamping has not

occurred -- that is, that the influence of psychological modalities is "normal" and so has not interfered with calculation. But, such clearcut cases are less frequent than borderline cases; accordingly, as with CIR assessments, UIR assessments are context-relative. Thus, whether an observer holds that some agent's behavior has been swamped by psychological modalities that adversely affect either his execution of the action on which he has decided or his perception of its goal depends, in the first instance, on what that observer regards as normal for that agent in these circumstances. Suppose, for instance, that a hitch-hiker is tired, wet and cold. He decides that his chances of getting a ride are slim -- not worth remaining at his station. Is his action in going home CR or UIR? That depends. If the observer thinks that the hitch-hiker usually has an optimistic outlook on life, he is likely to conclude that the hitch-hiker's estimate of his chances for getting a lift has been swamped by his present fatigue. But if the observer thinks that the hitch-hiker is by nature pessimistic, he is unlikely to regard the hiker's action as swamped. The observer may of course shift from what he thinks is normal for his agent to what he thinks is characteristic of most agents, or he may shift to what he thinks he would himself do in these circumstances. But whenever any action deviates markedly from what one takes as the norm for actions in these circumstances -- whether this be the norm for that agent, for us, for agents generally -- one regards that action as swamped and so irrational. In any case, then, the judgment of irrationality is context-relative.

Finally, we come to the fourth and last compartment of our

matrix, the class of actions that are characterized by unconscious rationality (UR). A person displays unconscious rationality when he or she maximizes goals without necessarily being conscious of the processes of calculation which lead to specific choices. Let us look at three examples of such behavior: (1) rules of thumb, (2) habits or standard operating procedures, and (3) intuitions. Rules of thumb are decision rules people commonly employ, often without consciousness of doing so. Herbert Simon's notion of satisficing is one example.<sup>3</sup> A person satisfices when he or she searches for an alternative which is acceptable rather than optimal in some absolute sense. Satisficing is frequently attributed to bureaucrats. Bureaucrats evidently prefer to make choices on criteria less stringent than the classical model of rational calculation: rather than maximizing or optimizing, they tend to select the alternative that is "good enough" -- that satisfices. When satisficing was first discussed, it was thought to be a critique of economic rationality, but some economists have argued that satisficing itself may be maximizing behavior when there are costs of search. In other words, if it is expensive to examine every alternative, it may be rational to choose the first alternative that meets some reservation level of quality.

Another example of a common rule of thumb is what political scientists call party identification. Individuals develop generalized attachments to political parties -- e.g., I am a Democrat -- and use that as the basis of their decision how to vote, unless they learn something about the personality of the candidate or about some

issue position the party has adopted which leads them to think that voting in the normal way is not in their interest.<sup>6</sup> Again, we can think of this rule of thumb as a cost saving way of making decisions -- one which the voter per se is often unaware of.

Related to rules of thumb are (2) habits and standard operating procedures. People may act for reasons which they have long since forgotten. These we call habits. Similarly, institutions can "program" members to act in specified ways (socialization, role expectations and the like) for reasons which no member can readily articulate. These we call standard operating procedures. In both cases, the fact that the motivation for a particular act is unconscious does not per se mean that behavior must be irrational. There can be good habits and bad habits, and their value will be determined by whether they efficiently achieve an individuals purposes.

As regards (3) what for want of a better term we have called "intuitions," perhaps these are calculations which are taking place at such high speed that one is unaware of making them. In the political world, great leaders who respond well in times of crises might be good examples of extraordinary intuitive rationality.

In all three cases, the fact that the actor might be unaware of the process of calculation does not affect the rationality of that behavior. This suggests that the common equation of the unconscious with the irrational is misleading. An agent does not have to be consciously calculating to be rational, but only acting as if goals are being rationally maximized.

## CONCLUSION

We began this paper by observing that the simple rational choice model and the simple psychological paradigm model both overlook the contribution of the other. The question of course is why? Part of the problem is that rational choice and psychological models are designed to answer different questions about behavior: where the one asks what is the best means of achieving some goal given some set of preferences, beliefs and values, the other asks why the actor assumed that set of values of preferences, beliefs and values rather than another. By concentrating on the efficiency of achievement in a narrowly limited context rather than the appropriateness of the beliefs and preferences per se, economic rationality tries to avoid the context relativity inherent in the normal use of the term "rational." Since the goal of social science is to be as value free as possible, this tactic has obvious attractions, but one cost is the omission of important questions. Both scholars and laymen must assess the beliefs and preferences of others when making moral judgments about the rightness of behavior and when trying to "understand" people the choices they make. Why did agent x believe that consequence a was more likely than consequence b, or why did he prefer goal c to goal d? In answering these questions, most people start from a more or less tacit assumption about what would have been normal for an actor in that situation to have thought; only when his behavior does not fit that assumption well, do they start to search for deeper psychological meaning.

Another important point is that our four-box matrix



is less a means of defining four sharply differentiated kind of action than it is a means of distinguishing four components that enter, with varying weights, into all actions. Thus, even an action which seems predominantly calculating and self interested can have a deep seated expressive component. While the stock broker making a decision to purchase bonds seems most naturally to fit into the rational (economic) paradigm, there may be at the same time aspects of his choice -- attitudes toward risk, an unusual concern for personal wealth, and the like -- which are crucial to understanding the decisions he makes. Conversely, behavior which seems largely expressive and uncalculating such as falling in love and proposing marriage may have rational choice components. The man waiting for the right woman may be unconsciously satisficing -- looking to have some reservation level met -- or even consciously weighing the relative costs and benefits of marrying one of his various girlfriends. Thus, instead of hastily assuming that this or that action belongs in one category or another exclusively, we should at most merely assume that, for the purposes of whatever particular investigation we happen to be engaged in, all components save one may provisionally be ignored.

A third conclusion to bear in mind is that the mode of analysis we employ -- the component that we choose selectively to emphasize -- will reflect not only our research interest but also our own personal "world view." The rational choice theorist will most commonly see all behavior in terms of rational calculation and the psychologist in terms of drives and impulses. Even attempts

to be synthetic -- to take into account all four components -- will rest on judgments about the relative weighing of the various components. Moreover, as we have indicated already even in extreme cases like investment decisions on the one hand and love on the other, it is not often obvious whether one paradigm explains more about a particular action or choice than another.

One last and important point is that even the rational choice definition of rationality either as consistency of choice or as maximization implies a context relative perspective. The man who allows unconscious motives to subvert conscious preferences or who chooses in an inconsistent manner is acting irrationally from the perspective of economic man, but might not be acting irrationally from the perspective of psychoanalysis. To say that a man acts rationally by maximizing deep-seated impulses would make rational choice theory tautological. Similarly, consider the case of the person who ranks alternatives and then chooses intransitively among them (perhaps because of anger for having to settle for second best, or sheer stupidity). Once again, it would make the economic definition tautological to try to bring such behavior within the definition of economic rationality. Rational choice theory must therefore accept the fact that behavior it calls irrational might not be called so from another perspective: in short, there is simply no escape from the context relativity of the term rationality.

## FOOTNOTES

1. See for example Harold D. Lasswell, Politics: Who Gets What, When and How. New York: McGraw-Hill, 1936, Power and Personality, New York: W. W. Norton, 1948.
2. The now classic works in this area are James M. Buchanan and Gordon Tullock, The Calculus of Consent. Ann Arbor: University of Michigan Press, 1962: Anthony Downs, An Economic Theory of Democracy, New York: Harper and Row, 1957: and P. C. Ordeshook and W. H. Riker, An Introduction to Positive Political Theory, New Jersey: Prentice Hall, 1973.
3. Herbert Simon, Models of Man: Social and Rational. New York: Wiley, 1957.